

MOTIVES AND METHODS
IN
POPULATION CONTROL

An Inaugural Lecture
GIVEN IN THE UNIVERSITY COLLEGE
OF RHODESIA

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UNIVERSITY COLLEGE OF RHODESIA

MOTIVES AND METHODS in POPULATION CONTROL

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MOTIVES AND METHODS IN POPULATION CONTROL

In the years that followed the last war we revelled in the new trends and discoveries of our modern age. We saw new vistas of opportunity and a great new society seemed within our reach. It was all unsullied by doubt or fear. Air travel brought the world to our doorstep and television brought the stars into our drawing room. The housewife's drudgery was relieved by gadgets that cooked any kind of meal, and at the press of a button cleaned the house till it shone. In commerce and science we fed our problems into the computers and soon were able to extend our weekends of recreation until they almost met in the middle of the week. Medical research came up with vaccines and antibiotics and soon a new speciality had to be catered for - geriatrics, or the care of the senior citizen. It looked like man was at last fashioning for himself a world that would give him the security and the pleasure that his forefathers had been denied.

Then came the awareness that all benefits have their side-effects and that these are sometimes as problematical as the original ailment. That nature is delicately balanced and that our manipulations might have results we had never bargained for. We treated whole tribes of people for tropical yaws with massive penicillin campaigns, only to find that syphilis, which had been held in check by cross-immunity from yaws, now became rampant. We bombarded our infectious diseases with broad spectrum antibiotics, only to find that their breadth changed the natural flora of the bowel and fungal diarrhoeas made their appearance.

Then gradually man became aware of his greatest miscalculation. He had used his skills to remove the debit controls on population growth of disease, pestilence and war without balancing the credit controls of a high birth rate. In one generation the world's population multiplied out of all proportion to the food supplies, and the benefactor, the philanthropist, the physician and the peacemaker faced the starving multitudes of their own creation. Today we face the greatest problem of all time and the very survival of mankind is dependent on its solution. We glibly speak of standing room only at the end of the century, but my contention is that our own generation is in crisis and we can forget about the fruits of our past heritage or labours until we have brought a creditable control into this chaos of our own making.

We all have responsibilities in tackling this crisis. The solution is not simple and it involves many disciplines. It cuts across many fundamental principles which we might be tempted to sidestep for convenience, but which we reject at our peril.

Reference to Figure 1 demonstrates a remarkable change in the rate of world population growth at the time of the industrial revo-

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THE PATTERN OF POPULATION GROWTH IN HISTORY

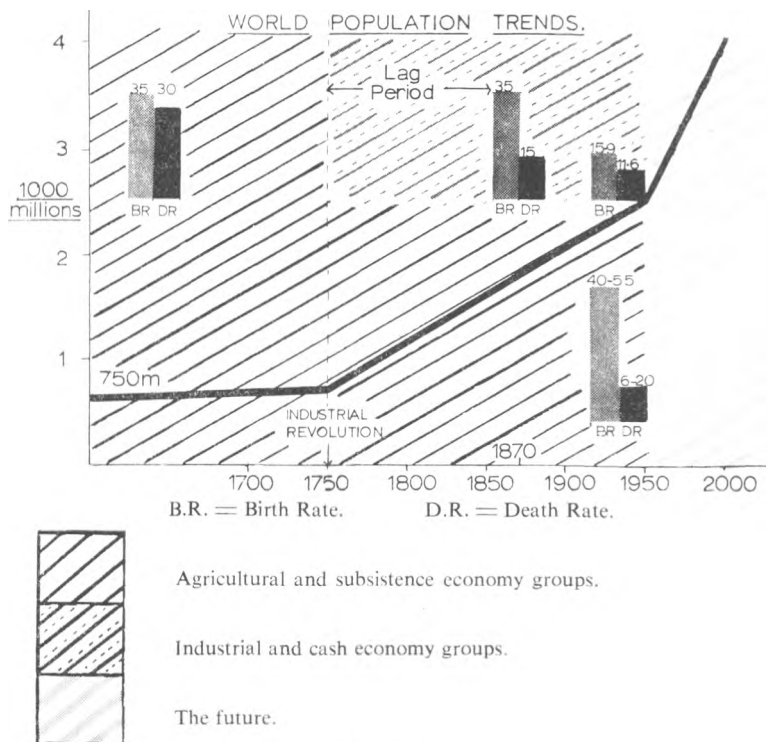


Figure 1.

lution in 1750, and a careful analysis of the factors influencing this change is most instructive.

(A) Prior to the Industrial Revolution of 1750

For about 25 centuries the birth rate had been high at between 35 and 50 per thousand. This was balanced by a comparably high death rate of between 30 and 40 per thousand, resulting in a population growth of only 0.5 to 1.0 per cent. per year.

(B) After 1750

This period has witnessed a population explosion with a rise in world figures from 750 million to 2,500 million over two centuries. However, this has not occurred simultaneously throughout the world and separate consideration needs to be given to the trends in Europe and America and those in the developing countries.

(a) The Pattern in Europe

With the dramatic economic development that accompanied the industrial revolution there were important improvements in agricul-

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tural methods, medical knowledge, hygiene and industry. This led to a sharp fall in the death rate from 30 to 15 per thousand. Particularly remarkable was the precipitous fall in the infant mortality rate during this period.

Probably the most interesting feature, and one that has relevance for an understanding of the solution to present-day problems, was the delay or "lag period" before there was a consistent drop in the birth rate. In Britain this "lag period" persisted until 1870, and from then until 1950 the birth rate dropped from 35 to 15.9 per thousand. In the years immediately prior to 1950 there was a further drop in the death rate to 11.6 per thousand.

The causes of the drop in the birth rate in Europe after 1870 were multiple, but were certainly not due to modern methods of family planning. Probably the most important factor was the improved standard of living which could only be maintained if the size of the family was limited. The lag period represented the time it took for the benefits of the industrial expansion to reach the population at large. This must surely indicate that when the peoples of the under-developed nations of today have access to all the modern amenities, then only will they be motivated to seek a lowered birth rate.

(b) The Pattern in the Developing Countries

We are speaking now of a group that represents two-thirds of the world's people—a majority group that cannot be considered in isolation. What happens in the emergent nations of the world in the remaining years of this century will have a direct bearing on the rest of the world, year by year and not just in A.D. 2000. In our "jet age" we have broken the barriers of distance, and the days of living in separation are past. Those of the technologically advanced nations of the world have brought their new knowledge to the developing nations and are therefore in part responsible for their population explosion. If we fail to become involved in their time of need, then we will most certainly be involved in the catastrophe that will surely follow. Now we know who is our neighbour.

Most of the newly developing nations have populations that are growing by at least 2.5% per year. In fact, these rates go up to 3.5% and occasionally higher. Growth continuing at 2.5% doubles the size of the population in 28 years and growth at 3.5% doubles it in 20 years. In short, unless growth slows down, most of the technologically backward countries face the problem of dealing with double their present population well before the end of the century—that is, well before the children born this year have completed their own child-bearing.

Why are these populations growing so fast? Reference to Figure 1 shows a lowered death rate compared to that seen in Europe and America, but a birth rate higher than at any time in the world's history.

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I worked for seven years in Nigeria; they were exciting years, for during that time we saw many of the changes that lowered the death rate to a level comparable to that of the developed nations. Our 80-bed mission hospital was the only medical service for a town of a quarter million people, so that we directed our main attentions to preventive medicine. My particular interest was in the development of an obstetrical service, and it was not long before antenatal clinics and small maternity centres sprang up all over the area, feeding problem cases into the central unit. It was exciting to see how the basic principles of obstetrics learnt in student days, though inexpertly applied, were the means of lowering the maternal and perinatal mortality rates. No longer did the women die in childbirth of obstructed labour, haemorrhage and sepsis, but in the creeks of the Niger delta motherhood was taking on new dimensions—it was now safe.

Perhaps most effective of all in those happier days of practice in Nigeria was the work of David Morley, working in the Methodist Mission Hospital at Ilesha. He was a paediatrician and was stimulated into action when he arrived in Nigeria to find that the infant mortality rate under the age of five years was 50%. He methodically set about finding out the reason for this appalling death rate by going to live in a small village off the beaten track. There he and his workers observed the children of the village from the time of birth until they were five years old and tabulated their illnesses. He had an ex-hospital matron who had the intuitive sixth sense only given to matrons of detecting early pregnancy, and she stalked the streets of Imesi-Ile registering women for the survey sometimes before the women themselves knew they were pregnant. Morley discovered, contrary to all our preconceived notions, that the prime killer was measles, and high up on the list came whooping cough, malaria and T.B. Underlying all of this was a base-line of protein malnutrition, and so kwashiorkor frequently manifested itself in the convalescent phase of measles.

These were all preventable disorders and, armed with this new information, we all opened new child welfare clinics that were supervised by young health workers who dispensed protein in the form of ground nut powder and gave triple vaccine, B.C.G., measles vaccine and anti-malarials to thousands of youngsters.

These, and many other campaigns in preventive medicine, have been carried out around the world's tropical belt, so that rather unjustly medical missions and W.H.O. have been blamed for the population explosion. If there is just an element of truth in all this, let us not stop doing good, but rather do more good by stimulating a desire for economic growth.

Having looked at the startling drop in the death rates in the developing countries, we must now look at the other side of the coin -- only to find that there has not been a parallel drop in the

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birth rate. In fact, the birth rate in these countries is higher than it has ever been in the countries of Europe and N. America. Whereas in Europe there was a birth rate of 35 per thousand in 1870 and 15.9 per thousand in 1950, in today's newly developing countries birth rates generally range from 40 to 55. The source of this difference lies mainly in the universality of marriage in the developing nations and the young age at which it occurs.

According to Notestein, in the densely settled regions of the world the problem is much more difficult than even these numbers suggest. Consider the situation of India. A perpetuation of its present rate of growth of 2.4% would mean that its present population of about half a billion would rise to one billion before the end of the century. India already faces acute shortages of food, and in an era of rising expectations what can India offer its next generation? There is a macabre truism which says, "The rich get richer and the poor get--children."

THE EFFECTS OF POPULATION GROWTH

These effects are mainly considered in relation to the developing countries where the impact of abnormal population growth is mainly felt.

(1) Food Supplies

The problem of increasing food supplies is not merely that of providing for the growing population. It is necessary at the same time to remove the existing deficiencies in the diets of the developing regions. According to F.A.O. statistics, the per capita intake of calories in the developing countries is only two-thirds of the consumption in the developed countries, and their animal protein intake is only one-fifth of that in the developed countries. As a result of this grossly inadequate intake, it is estimated that at least one in every five persons goes hungry, one in three suffers from protein malnutrition and three in five from malnutrition.

It is when we study the food requirements necessary to meet the population growth of the future that we become overwhelmed with the enormity of the task. Without going into the detailed statistics which are available, it may be stated that in the developing countries the rate of food production will have to be stepped up by 50% to achieve the nutritional goals demanded by the increase in population. A backward look only brings pessimism when we see that during the period 1958-64 growth in food production has been gradually falling while population growth has accelerated. In comparison, the rich countries of the world have been able to increase their food productivity with only half the rate of growth in population compared with the developing countries. In this way they have been able to export increasing quantities of food to the developing countries. This, however, has created a new problem by affecting the balance of

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payments between the two types of countries and has had the adverse effect of slowing the economic growth of the developing countries.

(2) Housing

Population growth leads to an alarming deterioration in the housing situation, particularly when combined with massive escape from the land and the uncontrolled growth of towns. Few countries have been able to avoid the growth of shanty towns and the squalor of slum suburbs. Furthermore, with this deterioration in the housing situation of a community there is an inevitable increase in the crime rate.

(3) Employment

In the normal development of an emergent nation we expect to see a change from the subsistence type of economy towards that of a cash economy. This usually begins with employment in advanced agricultural methods and later to employment in new industry and finally in the developing community services. All over the world the population growth in the developing countries has prevented them from attaining economic growth. Even in countries where there has been a marked increase in manufacturing production there has not been a like increase in employment.

This problem of creating sufficient employment opportunities for the growing population is particularly apparent here in Rhodesia. I quote from the budget speech of the Minister of Finance in the Rhodesian House of Parliament on 18th July, 1968. "During the ten years immediately before 1965, which included a period of exceptionally rapid growth, the employment opportunities for Africans in the money economy were increasing at an average rate of less than one per cent. per annum. This compares with the annual increase in employment of 7 per cent. which is at present necessary if the growing male adult African population is to be employed. It is clear, therefore, that the money economy has so far proved itself incapable of fulfilling the hope that increased industrialisation would provide employment for the major proportion of the expanding African population."

The problem today is greater than the problem that faced Europe at the time of the Industrial Revolution. Today modern technology in industry requires fewer pairs of hands and greater know-how with the result that investment in manufacturing often leads to a reduction in the total labour force. There are industries in Rhodesia today that are using primitive equipment solely because that type of equipment can give more employment than modern, more efficient and economical equipment.

(4) Education

One of the major effects of population growth within a community is the altered age structure of that community. There will be an

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immediate increase in the age group attending schools, colleges and universities. It is not too difficult to put up school buildings to house the increased enrolment of students, but it is an entirely different matter to provide trained teachers to staff all the grades in the educational structure. Universal free education up to Standard 6 is the boast of many of the emergent nations but this sometimes creates bigger problems than originally envisaged. The Standard 6 graduate no longer is prepared to get his hands soiled on the farm, but on the other hand is not equipped to climb as high as his restive ambitions direct him.

The financial impact of providing for an adequate education system has to be met by the cash economy section of the community and here again we meet with the vicious cycle of limited employment and limited national income.

(5) International Strife

If the rate of population growth is too great to meet the aforementioned demands then there will be an inevitable restive discontent which will provide a breeding ground for hostility and international war, both within countries, and between nations.

(6) Quality of Humans

Professor George Carstairs of the Department of Psychiatry in the University of Edinburgh has made a study of the impact of population growth on mental health. His initial studies were on animal behaviour under conditions of overcrowding and confinement. For example, in one experiment the maternal care of rats under these conditions became so faulty that 96% of all their young died before reaching maturity. Among the males, some became ascendent over their fellows but others showed a number of disturbances of behaviour, of which two patterns were particularly striking. Some males appeared to opt out of sexual and social interaction altogether, skulking alone on the periphery of the group while the hyperactive rats contravened many of the norms of the behaviour of their group, even becoming cannibal towards the young of their own kind.

It is, of course, a far cry from the behaviour of rats and cats to that of humans. However, there are interesting correlations between the incidence of attempted suicide and social overcrowding. A majority of these are relatively young men and women who have often had a bad start in life with an unstable or absent parent figure. They tend to experience great difficulty in forming inter-personal relationships; they are often at the same time demanding and inconsiderate towards others, and yet themselves emotionally immature and dependent.

Feelings of alienation and despair are the product of situations where the pace of political change has outstripped a society's capacity to meet the newly aroused expectations of its members. When,

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because of increasing over-population, the standards of living actually decline at the very times when people's aspirations have been raised, the stage is set for further outbreaks of collective irrationality and violence.

THE PATTERN OF POPULATION GROWTH IN RHODESIA

The annual population increase is $\pm 150,000$. If we are prepared to accept this increase then we need to know what we must provide in the next budget for its adequate support. This is illustrated in Figure 2.

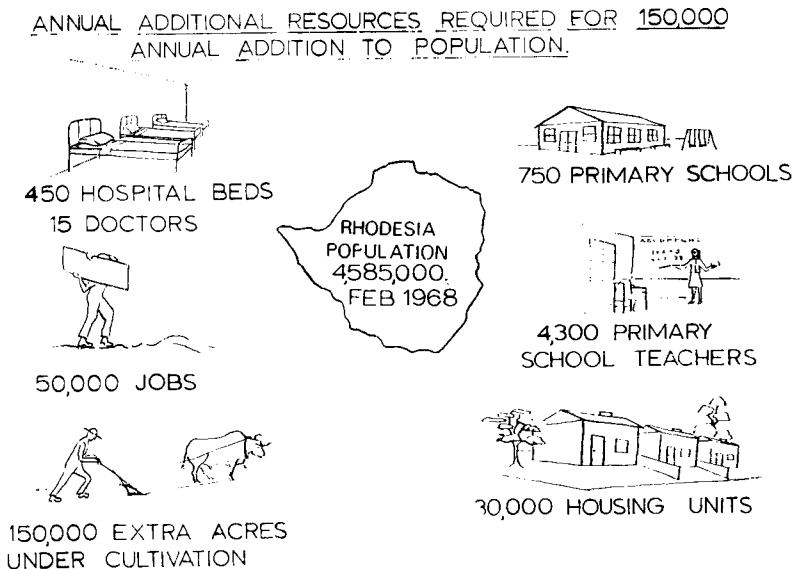


Figure 2.

It seems apparent that we are not yet geared for that magnitude of provision particularly when it is evident that we have not yet provided adequately for our present population. Economic growth is vital for this country's survival, but if there is not a simultaneous levelling off in population growth then we will never reap the benefits of any economic expansion.

In talking of population growth in Rhodesia we find ourselves treading unintentionally in political waters, for the politicians have divided the problem into white and black. Perhaps in part it is that, but on more careful analysis it is more accurately divided into the two economic sectors of the country—the cash and the subsistence economies.

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The cash economy group are a relatively small section of the population which includes virtually all of the white people and a slowly growing number of African. In general, it may be said that they as a group have followed the pattern of industrial Europe and, recognising that the benefits of modern civilisation come to those who limit their family size in proportion to their income, have by their own intention sought family planning advice. This has become available to those who desire it through general practitioners and municipal and local authority family planning clinics. The Family Planning Association, through their well organised education programme, have got the message across to those who had not previously given the matter thought, and found them most receptive.

That brings us to the very much larger subsistence economy group, who, in fact, account for the majority of people in Rhodesia, and consist in the main of rural Africans. The Department of Gynaecology in this Medical School has an interest in the health of all our people. We know and understand something of the needs of those in the cash economy sector and we play a small part in assisting in family planning work among that group. It has in recent months been a major concern to us to understand the background of those in the subsistence economy, so that we may be in sympathy with their total needs and not just become hawkers of loops and pills. It is from this viewpoint that a study is presented of the culture, religion and way of life of a people with whom I was previously unfamiliar. I am most grateful to Professor Michael Gelfand and some of my African colleagues who have shared their knowledge and understanding with me.

Also, Miss Woodhams, a sixth-year medical student working in our department and in conjunction with Dr. Sapire of the Family Planning Association, has made a preliminary study of the response of the rural and the urban African to family planning. I appreciate having access to her findings.

A BACKGROUND STUDY OF THE SHONA PEOPLE IN RELATION TO POPULATION GROWTH

(A) THE DESIRE FOR LARGE FAMILIES

Anyone who practises Obstetrics and Gynaecology or becomes involved in the wider implications of population growth among the African people will quickly become aware of the tremendous regard shown to childbearing. In every society one of the important functions of marriage is procreation. However, I believe this function is even more demanding of a Shona marriage. Let me give evidence for this statement and also endeavour to explain this high priority.

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(I) The Influence of Traditional Shona Religion and Family System

It is certain that much of the traditional ancestral type worship of the Shona is passing away, but its effect on family structure still remains, and it is therefore of interest to delve into its background.

The high priority placed on childbearing is evidenced by the fact that if there has been no issue in a marriage after a reasonable period of time, then it would be natural for a man to seek another wife. The wife's father would himself come forward with the offer of another of his daughters, a practice called *chigadzama pfuma*. The bride wealth payable by the husband for this new wife would be a very small price as it was virtually a responsibility of the bride's family to provide the bridegroom with children in return for the bride wealth he had originally paid. On occasions the *chigadzama pfuma* is not acceptable to the husband and he may reject the second daughter. He would then be free to seek elsewhere for another wife but then would have to pay the full bride wealth.

What is the reason for this desire for many children? In traditional Shona society wealth is not measured by money in the bank or material assets. A rich man is a man with many children with perhaps more than one wife and a large number of cattle. Cattle are used as the currency for bride wealth and so therefore cater for child production. Shona society is a group society and its strength is made up of its family system. All the pleasures of life are dependent on the family structure and even their religious beliefs of the next world revolve around the family structure.

The traditional Shona sees a bridge linking this world with the next and there is prayer communication with the dead father or grandfather. He does not ask directly from God as he believes that God made good things and bad things and would therefore not be prepared to influence one factor just for one individual's needs. However, their communication is with their dead ancestors who are among the good spirits in the after world and it is they who can help in the present life. For ancestral type worship to continue there must naturally be many children produced within the family structure.

The people recognise the high perinatal and infant mortality that has pertained in the past so they need to aim at having sufficient children to cater for these losses. It is believed that when a man dies and his spirit goes to the next world it will become *effete* if he has no children to pray to him. Furthermore the ancestral spirits need, in particular, grandchildren to pray to them so that it is important for every family to have a number of sons. Taking into consideration the previous high mortality rate and the need for both sons and daughters the ideal Shona family would thus consist of six to eight children.

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If the husband himself is impotent or has not sired more than one or two infants then with the wife's permission he can ask secretly for a male relative of his to fulfil his procreative functions on his behalf. Again we see here how important childbearing is within the family system.

Within traditional Shona society any attempts made at induced abortion are abhorred and regarded as unnatural. Great recognition is given in their society to the sanctity of life and it would be a tragedy if this were ever lost.

(2) Fear of Losing Children

In part this fear stems from the high infant mortality rates of the past and this has influenced productivity from generation to generation. However, the bad old days are not over and this is still a very real fear, in the rural areas today. In Miss Woodham's survey, 13% of urban families had lost one or more children, whereas 33% of rural families had lost children. It was the commonest reason given when questioning women who did not want family planning.

(3) The Need for Security and Support in Old Age

This was the second commonest reason given for wanting a large family. The strength of the extended family system in rural African society cushions all members, particularly the aged, from many of the vicissitudes of life and is to be commended. If there is ever to be a move to smaller family units, then provision will have to be made for adequate care of the aged in the form of pension schemes, insurances, etc.

As mentioned earlier, this description relates to the traditional Shona, but it does to a lesser degree colour the thinking of the urbanised Shona. Sympathetic consideration should be given to the African who has come into the urban way of life. Many, of course, still return to their traditional rural way of life after a period of time in the larger cities. However, many have cut their ties with their traditional way of life. Some of these have quickly found their feet and have become integral parts of the so-called Western civilisation. Others have been less fortunate in making the transition and find themselves in a great dilemma. They have relinquished the high moral standards of their own customs, they have given up the idea of ancestral worship but they have found nothing to take the place of these foundation pillars of their society. This surely must be a lesson to those who seek to lead people into a new way of life. Again this cannot be done by simply hawking loops and pills.

(B) NO INCENTIVE TO LIMIT FAMILY SIZE IN A SUBSISTENCE ECONOMY

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NEW ADJUSTMENTS FOR RHODESIA

Firstly, we must be convinced that adjustments are necessary. I believe they are, but not necessarily the type that some would campaign for. I frequently become embarrassed by, and even fear, the campaigning zealot who has the negative philosophy of limiting population growth by whatever means, with that only as a motive and goal. We must take heed of the information that we have been correlating and whatever be our creed or custom we must face up to the fact that the increase in population is greater than the growth in viable economy able to absorb that population growth. Whatever be the discipline in which we are engaged this is our responsibility to our generation and to the generations that follow. As we have seen, the problem is vast, it is complicated and there are no simple or single answers. I would go even further and state that we do not have many of the answers, so that we are morally bound at this juncture to continue our sociological, economic and medical research.

At no time may we pursue a policy because it is good for society without consideration of what it means to the individual and to the families of our community. However, I am convinced that it would be to the benefit of all our people, both collectively and individually, if they were to move towards a society structure based on a cash type economy. Within this new structure there would then be the desire and intention for family planning and therefore limitation of population growth. I am satisfied that in encouraging such a programme it will be for the benefit of our society at large and also for the individuals within the society. Furthermore, I am certain that we will never limit our population growth until we have dealt with this economic restructuring.

It is important to recognise that no blanket programme is suitable for every country and society in the world, for our situations vary so considerably. Programmes will, therefore, vary from country to country, dependent on the local particular needs. The needs of Australia are diametrically opposite to those of India and, as we have already outlined, those of Rhodesia are in many respects unique. This surely implies that any decisions taken, must take into consideration the welfare of every strata of a society and if any programme is to be successful, members of each section of the community need to participate in the making of policies. Where one sector of a community dictates the policy for another sector then that policy is doomed to failure.

IMMEDIATE ADJUSTMENTS

Agriculture and Food Supply

Whether we are successful or not with our programmes of limiting population growth there will be a need for an increased production

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of food to cater for the present shortfall and also for the increase in population growth that will continue until our family planning programmes become effective.

The economists of the food and agriculture organisation (F.A.O.) of the United Nations tell us that, considered on a global basis, the world could grow enough food to meet all its needs, at least up to the year 2000, and that the developed countries in particular could achieve much higher rates of production than they have done in the past. However, it must be recognised that such enormous increases in productivity which would be necessary, have never been accomplished in the past. These solutions are not as easy as they may seem superficially. When developed countries increase their food production and then export them to underdeveloped countries, new problems arise when these countries use their limited export earnings which they badly need for buying capital equipment from the developed countries. The food problem of the developing countries and the related problem of general economic development can, therefore, only be solved by developing their own agriculture. The principal factors in improving land productivity are fertilisers, pesticides, efficient use of water and, above all, improved plant varieties responsive to high doses of fertilisers. Animal health services, improved animal husbandry including animal nutrition and genetic improvement of stocks are the main methods of increasing livestock productivity. Abundant experimental evidence is available which shows that yields could be increased several fold as the result of efficient use of these factors.

I was greatly encouraged as I listened to Father Myerscough, who is working in the Chishawasha Reserve, tell of the growth of co-operative farming groups in that Reserve. Of how families were coming together and bringing their few cattle into a central farm where modern methods of farming were taught and good prices were obtained for their slaughtered cattle.

It is also encouraging to visit the tribal trust areas of Rhodesia and see how Government officials are working alongside the farmers, teaching them new methods and providing the facilities to encourage greater food productivity. But this type of programme will require far greater support in the years to come. The limited methods of subsistence farming which are nearly always associated with low productivity of land and labour have to be overcome. Another serious obstacle is the unfavourable land use pattern, fragmentation of holdings and traditional tenure systems which render it difficult for the farmer to produce more food than needed for his own consumption. These obstacles, together with lack of capital and credit, and the absence of suitable markets to sell agricultural products at competitive prices must be overcome, in order to create an economic and social environment which will enable the available technical knowledge to be applied.

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These are the immediate adjustments that are imperative — they are being attended to, but if we are going to keep up with the times in Rhodesia, we are going to have to change gear and face the needs even more realistically. By so doing we will be a fair distance along the way to catering for the long term adjustments that we must consider next.

LONG TERM ADJUSTMENTS

If the problem we face is an excessive population growth out of proportion to the development of an economy to support that growth, then it is obvious that we must also tackle the question of curbing population growth. Let us again be specific and consider Rhodesia's problem. In doing so we will find that the economic factor and the population growth factor are inextricably linked.

We have stated that in the cash economy sector of the community there is already the desire for family planning and that this desire is being further stimulated by family planning educators and being catered for by the established medical services.

It is to the large African population in the subsistence sector of the economy that we have outstanding, unfulfilled commitments. From experience in other parts of the world we have seen that family planning and limitation of population growth is only acceptable to a community which has an economy that is not only viable but also competitive, an education programme that not only cures illiteracy but also trains professional men and responsible leaders, and a way of life that is freed of the injustices that frustrate. This then is top priority for Rhodesia. Such a programme is already under way, and as it gains momentum we must be ready to teach and provide methods of family planning for those who then desire it.

In this parallel approach to the problem of population growth, allow me to leave a few thoughts concerning its application.

I am certainly no economist or sociologist and I get completely overwhelmed when trying to analyse that vicious cycle — the cycle of no economic growth because of no market to sell, and nobody to buy because of no industry to provide wages.

However, I saw recently how one contribution is already making an impact. In the Chishawasha Reserve the Catholic Mission started a small savings scheme — a shilling to join, a minimum of 3d. per week to stay in and a penny fine if you forgot to pay. This grew, and today it has become a registered finance corporation with assets of over £4,000 in investments. Out of this has also grown co-operatives which purchase capital equipment for farming and building projects. This is economic growth from the grass-roots in the areas where the people live and is surely the pattern for the future.

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It would be a mistake to concentrate economic development in the cities and the Government has been wise in giving support to the development of the tribal trust lands. My friends in the economic world tell me that it is also vital to establish better roads, bridges and communications if the rural areas are going to develop their own stable economic structure.

Recognising a definite relationship between standards of vocational education and family size, here is another field that needs re-appraisal and possibly re-direction. I must leave that also to the experts, but I am sure they are not satisfied with the end results of the present educational system.

Dr. Rittey in the Department of Social Medicine asked me not to forget the old folk. After talking with African medical colleagues I am sure he is right for herein is a basic insecurity which in the past has been satisfied by many children. This means pension schemes, insurance policies and care for the aged, both medically and socially.

Then, of great importance --- the answer to the mother who fears losing the children she has got, and so has more, just in case. Here there is the need for a comprehensive maternity and child welfare programme in conjunction with the family planning clinics to show the mothers that it is our intention to give them healthy children and not to deny them of a family.

There is far more to economic development and distribution of the benefits of modern civilisation than I have touched on --- but as we become aware of its importance, so our people will seek to plan their families. When they do, what will we offer them?

Before considering the most suitable methods of family planning, I believe it is important to pause and give thought to the moral and religious principles involved, for there are countries today who have adopted questionable methods and recognised too late that the price of lowered moral standards has been a high one to pay.

RELIGIOUS AND ETHICAL PRINCIPLES

It is a modern trend to adjust principles to fit changing circumstances --- to find a "new morality" for the new society. This can be disastrous, for we as humans have an unfailing tendency to be selfish and each generation will vie with the one before to be more lenient and permissive. It can be particularly dangerous if we carry this tendency into the sphere of human reproduction, whether at the individual level or in terms of world population. We do not have to lower our standards, for surely the solution to erosion is not submission but reinforcement of the bulwarks of the citadels of human society.

I believe that there is value in the re-examination of ethical principles in the light of new discovery and changing circumstances. This obviates the blind acceptance of dogma and in my experience such exercises have more firmly entrenched my principles so that now I present them to you confidently for they have been tried in the field of clinical obstetrics and applied in the lives of individuals.

My guiding principles are based on the teaching of the Bible which I accept as the Word of God. Because my father is a Christian minister you might be forgiven for regarding these principles as congenitally acquired, or even that they are the dictates of a church. Though I give all credit to these invaluable influences, I accept the principles because they originate from a higher and infallible source.

I recognise full well that those who support a Christian basis of ethics have wide differences, and this fact has been underlined by pronouncements in recent weeks. I believe that these differences can be narrowed if we recognise their causes and then give priority only to the standards that have an unchallengeable foundation.

There are various sources of principles and these must be distinguished if we are to accurately assess their worth. They are classified by Vere under four heads. The first two are Biblical in origin and comprise the "commandments" which are universally applicable and inviolable, and then a number of "inferences" which are not specifically spelled out but which are obvious premises based on the thought and acts of Christ and His apostles. The commandments and inferences constitute God's revealed principles and on these most Christians are in agreement.

Then we find two other categories -- the man-made rules of expedience which may contain truth, or even be true in some situations, but confuse in others; and lastly the traditions of the Church. In evaluating these latter two categories, we recognise that Christ taught that it would be from His teaching, not from human inventions, that God would give understanding of the truth. This demarcates the authority of the first two categories from the others.

What then are the fundamental Biblical principles that impinge on the subject of human reproduction and population growth?

The Sanctity of Human Life

God created man in His image and it was to please God that man was given life. Herein lies the value of human life -- not from any intrinsic worth of our character, skill or aptitude, but because we bear the stamp of the divine creator. Hence the weakness of any ethical system that does not take God into its reckoning.

We are expressly forbidden to take life in haste or in malice, and though there is a definite mandate to take guilty lives judicially, there is none whatsoever to take the life of the innocent.

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The obstetrician, who acts as paediatrician to the foetus, must ask questions about the beginnings of life and about the relative value of foetal life.

The Bible certainly gives no teaching as to when human life commences — this is a question for the embryologist and the physiologist and the more refined their methods of study the earlier they are able to recognise the distinctive features of human life. Four weeks after conception there are rudimentary forms of body, eyes, ears and nose and at six weeks distinctly human features are recognisable. It is at this early stage that the circulatory and nervous systems have begun to function and, with the aid of an ultrasonic detector, the heart beat can be recorded and counted at the 10th - 12th week.

No, we cannot say when life begins and possibly there is no rigid point in time in the biological sense. We see a life developing in utero and watch its stages from conception to quickening and then on to birth and its declaration of independence when the cord is cut. We do note that 10% of early foetuses are shed spontaneously and so must consider that its attainment of the full status of a human child is a gradual one of progressive development. Therefore, since God, through the Bible, has revealed no point at which foetal life becomes sacred we can only respect its potential all along, but increasingly as the probability of separate life becomes stronger.

There will on occasion be the need to decide on the value of the life of the foetus in comparison with the life of the mother — but these occasions are very, very rare. Only when continuation of the pregnancy is a grave risk to the mother's life should one ever consider sacrificing the life of the foetus.

This Christian doctrine of the sanctity of life must guide us when we need to give answer to those who would recommend therapeutic abortion as a means of population control. I will also give cogent medical evidence in condemnation of such degrading practices later on.

Marriage and Sexual Union

The teaching on marriage is clear cut and unambiguous. Where people have neglected this teaching the penalties have always been high — lives have been ruined and civilisations have crumbled. The Bible teaches the permanence of the marriage union — an act whereby a man and a woman become as one. So marriage is for the mature — who go on maturing together. In view of this, marriage should be recognised as the basic human relationship, with the expression of love in sexual union serving as the seal of mutual devotion. If it is the seal then it takes place within the marriage bond and never to be cheapened by escapades before or outside marriage. This also is firmly entrenched in Biblical teaching. The sexual act is, therefore, the expression of the mutual affection of the partners as well as the means of procreation.

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We are also told that marriage carries with it responsibilities, and again, parenthood is for the mature. Now and again when we conduct surveys and ask the question "how many children do you plan to have?" the response is an upward look into the heavens and the reply -- "as many as God sends." For them it is the kind of upward look the Englishman gives in November, resigned to a continuous down-pour! That is not responsible parenthood.

Contraception

Before we leave our study of ethical principles we ask about contraception and it is here that I must part company with some of my Christian colleagues. I find no command or inference in the Bible that refers to the prevention of conception. It is therefore understandable that sincere Christians will differ widely when dogma is proclaimed, for it can only be human in origin -- and with the best will in the world, humans will always differ. Surely then we have come to the point where behaviour must be governed solely by the conscience of the individual -- a conscience that must be kept sharpened by constant contact with his God. A conscience which accepts that greed is as reprehensible in the sexual act as in any other human experience, that the consideration of love comes before personal pleasure and even that the discipline of short periods of abstinence might have a definite spiritual purpose.

Personally, I see one other Christian principle that is relevant and that is that we are answerable to God for the use we make of the knowledge and skills He has given us; and we may not irresponsibly leave to the providence of God, what He has given us the ability to do ourselves.

I have searched my own conscience in sincerity and in the light of God's teaching and feel free to give contraceptive advice to those who wish to plan their families and their married life, and also to provide tuition in the subject of family planning to our medical students.

Humanae Vitae

Here then is contained my reaction to the Pope's recent encyclical, *Humanae Vitae*. In this encyclical the Pope declares contraception, including the use of the pill, to be wrong. I cannot accept this teaching, not because so many women, including Catholics, are using contraceptive methods, but because it has not the authority of the Word of God. This matter is, therefore, outside the jurisdiction of any church and must be left to the informed disciplined conscience of the individual. The Church can, and should, give instruction and advice, but this is not the field for law making.

My distress at first reading this encyclical has, however, become tinged with hope. I had talked at great length with a number of Catholic doctors and priests prior to the release of the encyclical and

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found an interesting degree of uniformity of thought among them. They all regarded methods of contraception which interfered with the sex act, e.g., the diaphragm or the condom as unnatural and therefore, in their views, wrong. On the other hand, they individually felt that the pill did not interfere with the act of intercourse and so could be regarded as a more "physiological" method of family planning. At that time of discussion they were prepared to recommend to individual Catholic couples the use of the pill when family planning was indicated, and when their conscience was clear. This, to me, was heartening, for here were consciences illumined by a personal relationship with God making decisions about personal matters that were wise and practical, and not in conflict with the teaching of the Bible.

These Roman Catholic Christians gave me a wonderful impression of a deep concern for people and I responded to their sincerity. This, of course, made my distress at reading the encyclical the greater, for now I feared that minds would be closed and the understanding of viewpoints would be barred.

However, all does not seem to be lost, for there is not the uniformity of thought within the Catholic Church that I had previously assumed. If this encyclical carried the weight of universal Catholic thought I would refrain from comment in a lecture such as this. It is because there is such a large body of Catholic thinking that is so much nearer that of non-Catholics than the Pope's encyclical, that I wish to discuss this with the hope of retaining dialogue and understanding.

Firstly, it must be recognised that the pronouncements of the Pope carry different weight depending on the circumstances. When he speaks *ex cathedra* this carries for Roman Catholics the full weight of Papal dogma. When he gives an encyclical this is to be regarded as doctrinal teaching, and not as dogma. Catholics differ in their response to the doctrinal teaching of an encyclical --- many will accept it as their personal standard because it is Papal in origin; others will relate it to their individual situation and will come up with a decision which may or may not agree with the encyclical. It is this latter attitude that finds a response in my thought, not because it is rebellious, but because it is independent of human strictures.

Evidence that decisions of this nature are open to difference of opinion is the very fact that the Pope set up a Papal Commission to advise him on the matter of contraception and that he eventually accepted the minority opinion of the Commission that there should be no reform in the Church's teaching on contraception. I cherish for Catholics the opportunity in the future to respond to their own individual Christ-illumined consciences in this intensely personal matter.

METHODS AVAILABLE

I do not propose to give an exhaustive account of each method --- that forms an established part of the undergraduate curriculum and

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lends itself best to small group tutorial teaching. I would, however, like to show that it should be possible by intelligent assessment of each individual couple to provide them with a method best suited to them. In setting up global and national programmes of family planning let us always remember that we are still dealing with individual people — not clinics or perhaps over-productive wombs!

Many couples are on the threshold of marriage and they look to us to help them find the joy and peace and relaxation that comes to those whose married life is well planned and well disciplined. Others have known the hardships of too many, too often and seek sympathetic understanding and support. They are each different in their endocrine balance, in their sensitivities and in their anatomy. They each deserve individual assessment and after a particular family planning method is selected, they should be followed up and the method adjusted if necessary. There is no reason why the customer should not be completely satisfied.

I am particularly pleased to see that in Salisbury the F.P.A. clinics are recognising the opportunities of doing far more than just handing out contraceptives. There is a magnificent group of lady doctors who deserve of our highest esteem, who do not regard a consultation as complete without dealing with sexual and marital problems when necessary, and then give the patient a thorough general physical and detailed gynaecological examination. This includes a Papanicolaou cytological smear for the detection of pre-invasive malignancy. Any abnormal findings are discussed and, if necessary, the patient is referred for a consultant's advice, thus dealing with any problems before they become serious. I am sure this is also being done by private general practitioners and must be one of the most satisfying features of their work.

A vast amount of research is being carried out to find improved methods of contraception that will be effective, safe and free of side-effects. For the developing communities of the world, methods need also to be inexpensive by local standards and not dependent on mathematical calculations. These demands are not too high and satisfactory methods are certainly becoming available.

EFFECTIVENESS OF CONTRACEPTIVE METHODS

Average Pregnancy Rate/100 Woman Years

Douche	37.8	Safe period	14.4
Foam tablets	22	Diaphragm	12
Jelly alone	20	I.U.D.	5
Withdrawal	16	Sequential orals	1.4
Condom	14.9	Combined orals	0.2

Figure 3.

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We will consider some of the methods which are most commonly employed.

(1) Withdrawal

This is probably the most wide-spread method in use in areas where there is no knowledge of more sophisticated methods. This can only lead to stress, dissatisfaction, frustration and a high failure rate.

(2) Safe Period

This method is dependent on the recognition that ovulation takes place 12-16 days before the onset of the next menstrual period. The accuracy with which the day of onset of the next menstrual period can be predicted depends on how much information is available about the pattern of past cycles in that particular woman. When the pattern of three cycles is known, the accuracy of the next cycle can be predicted in only 64% of cases, but when the length of 12 cycles (1 year) was known, the accuracy of prediction rose to 90%. (B.M.J. 30.1.65., P.263.) This degree of inaccuracy will not give the average couple a "safe" period and the failure rate on this calendar method is 14.4%.

Further evidence about the time of ovulation is provided if the woman will record her temperature every morning and plot it on a graph. At the time of ovulation there will be a rise of 0.5°F. which is then sustained until the end of the month. As the ovum can survive for 48 hours, the couple must wait for 3 days after the rise in temperature and regard the remaining 10 days of the cycle as safe.

The latter temperature method is acceptable to the couple who are motivated to discipline themselves to abstain for all but 10 days in one portion of the month, and who can read and record temperatures accurately. Where these restrictions are applied claims are made of pregnancy rates down to between one and five per 100 woman years. I can only presume that these enthusiasts produce temperature charts less typical of the journeyings of a spider than those presented to me by most of my patients. Often the calendar and the temperature methods of assessing the "safe period", are combined.

(3) The Diaphragm

When combined with a spermicidal jelly this is probably the most acceptable method for those who are not suited to the pill or the loop. Its failure rate can be reduced to about seven pregnancies per 100 woman years when combined with the jelly — I know some families in Salisbury who have had more than their fair share of the seven failures!

(4) The Intra-Uterine Device (I.U.D. or "Loop")

I am told that it was the Bedouin Arabs who first used the I.U.D. Before embarking on a long journey across the desert they would put

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some small stones into their camel's uterine cavity, hoping thereby to avoid any unnecessary delays. Unfortunately they were not very well up on their comparative anatomy as it appears that camels have a very high incidence of uterus didelphys or "double-uterus"!

Since that time the relatively inert plastic devices have been designed in all sorts of shapes and sizes. Enthusiasts have even had their own made in the shape of their initials and the most sophisticated is one made in the shape of the Mercedes-Benz sign with a built-in magnet so that one can check that it is still in place.

This initially seemed like the answer to the needs of those who couldn't use the pill—in particular, those in the poorer, less well-educated communities of the world. However, there have been snags. The plastics are not as inert as initially thought and there are definite side-effects in some patients.

Among the more frequent complications of the loop are haemorrhage in 10% of users, pain, extrusion in 10%, infection, perforation and a not insignificant number of unplanned pregnancies.

Statistics presented from a very large series at the last World Congress of the I.P.P.F. in Chile showed that of women wanting to use the I.U.D. only 50% were still using it after two years. For those who are able to use it, it has all the advantages of minimal cost, success and one-time insertion, but we certainly need to study our complications more critically if the I.U.D. is to be more widely used.

I am certain that we can reduce the incidence of complications. This will come about with the discovery of better materials, but also with even more careful initial assessment of our patients, the use of pre-packed, pre-sterilised equipment, immaculate aseptic technique and the steadying of the cervix with a volsellum prior to insertion of the device. It is for these reasons that I have tended to resist the widespread use of non-doctors for the insertion of loops. I know there are a few sisters who have become skilled in this work and the day may come when we will need to train more, but it is the complication rate that is building up a resistance in the community and the appeal of volume of work to be done cannot be satisfied by using any but the most skilled in this aspect of family planning. We are plagued by a high incidence of pelvic infection in Rhodesia and if this is not recognised, the insertion of the loop will exacerbate the condition for the individual and also stop all her friends from asking for the loop.

There is one outstanding question about the I.U.D. that we should not avoid. How does it work? In the early days I presumed that it acted as an early abortifacient by dislodging the implanted embryo. If this were so, then my Christian principles would be violated and I would not be able to recommend its use as a method of family planning. However, experimental work in animals has been conducted in many centres and this has demonstrated that the intra-uterine device

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causes hyper-motility of the fallopian tubes, thus propelling the ovum through the tube so rapidly that it enters the uterus before it is ready for implantation.

There have been failures where the fertilised ovum has become implanted and the foetus has continued to grow to term. I am, therefore, prepared to accept, until there is any substantial evidence to the contrary, that the I.U.D. is not an abortifacient.

(5) Oral Contraceptives

These hormonal preparations have proved to be the most efficient method of contraception that we have ever had. With their advent just a few years ago there came a revolution in the field of pharmacology for in a very short time there were literally millions of completely healthy people taking drugs on a continuous basis.

There are over 50 preparations to choose from and these tablets, in the main, consist of varying proportions of different types of oestrogens and progestogens. Their prime action is to suppress ovulation by an effect on the pituitary gonadotrophin output.

TYPES OF HORMONAL CONTRACEPTIVES

- (i) Combined Tablets.
- (ii) Sequentials and Serials.
- (iii) Incrementals.
- (iv) Progestogen or Mini-pill.
- (v) Long-acting I.M. Progestogens.

Choice of Pill

It should be possible to assess the patient's own hormonal balance from her menstrual history and a gynaecological examination. Pills can be grouped according to their major hormonal effect, whether predominantly androgenic, progestogenic or oestrogenic and then a pill from one of these three groups is chosen which will get rid of any undesirable effects in the woman's own menstrual cycle by adjusting her hormonal balance. The guiding rule in choosing an appropriate pill is that where oestrogen effects predominate in a woman's cycle an oral contraceptive which is predominantly progestational should relieve these and vice versa. If she is already on a pill and is experiencing side effects then the pill is altered according to the hormonal effect responsible for the symptom. In this way it should be possible to tailor-make a pill to fit the individual.

The oral contraceptives *do* have side-effects, but in the main these are relatively mild. As mentioned, it should be possible to adjust the structure of the pill to eliminate these side-effects in the majority of women.

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SIDE-EFFECTS OF THE PILL

(A) Androgenic

1. Weight gain.
2. Amenorrhoea.
3. Acne.
4. Depression.
5. Loss of Libido.

(C) Oestrogenic

1. Nausea.
2. Leucorrhoea.
3. Thyroid Function.

(D) Unplanned Pregnancies.

(B) Progestogenic

1. Breakthrough bleeding.
2. Pre-menstrual symptoms.
3. Diabetogenic.
4. Migraine.
- *5. Thrombosis.
6. Hyperpigmentation.

(E) General

1. Reduction of lactation.
2. Fibroids enlarge.
- *3. Cancer.
4. Future fertility.
- *5. Liver function.

Thrombosis

Some have reported an increased incidence of thrombosis and embolism in women on the pill. In response, extensive surveys have been carried out and the F.D.A. of America report a mortality of 12.1 per million taking the pill compared with 8.4 in the general population. This difference has no statistical significance. It is advised, however, that if women have had previous thrombosis they should not take the pill.

Cancer

There is no evidence whatsoever that the oral contraceptives cause an increased incidence of genital or breast cancer.

Liver Function

Abnormalities in liver function tests have been observed, but these have reverted to normal on stopping the pill. These changes are usually not clinically significant and caution is only advised when oral contraceptives are used in patients who have a history of impaired liver function.

In the final analysis, we may say that the immediate side-effects of the oral contraceptives are not marked and can usually be solved by altering the tablet. There is no evidence of significant long-term effects and in return we have a method of producing sterility which is both reliable and reversible. This must be for most women the most acceptable method of contraception and has brought to millions of marriages a new dimension---a new freedom. It should be made available to all married women who in their responsibility deserve this freedom.

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The Single Woman and the Pill

Before leaving the pill may I put to you a problem that has caused me a great deal of heart-searching — the question of the single girl who asks for contraceptive advice. The answer I share with you may not be the right one — in fact, there may not be a correct answer. My answer comes from a very sincere concern for the few who ask the question.

If the girl is a Christian, I endeavour to share with her my interpretation of the Christian standards of marriage, and also remind her that the One who sets the standards is concerned in her welfare and that He is able to provide her with the strength to live up to those standards. If she does not profess to be a Christian — well, she'll get the same message!

There still remain those who do not accept these principles and for them I feel a continuing concern and responsibility. I have in the past given such women contraceptive advice, believing this to be a lesser evil than to see the possible alternative of her ending up in the clutches of a back-street abortionist. It would have been easy to send her to someone else, but by retaining my concern for her I would hope to have other opportunities of influence.

THERAPEUTIC ABORTION

I have given religious reasons for condemning this as a method of population control and regard these as the strongest of all reasons. Here we are dealing with an entirely different situation from the question we have just considered relating to the prevention of conception, for therapeutic abortion is the destruction of life. In many countries the gynaecologist is called upon to carry out the abortions encouraged by the State programme of population control. Allow me, therefore, to further defend my position by answering three pertinent questions.

(1) Is Therapeutic Abortion Necessary for the Control of Populations?

Gordon has shown that in countries where a satisfactory degree of control has been brought to the rate of population growth the determining factor has been the economic improvement in living standards rather than an abortion programme. Thus, in Japan, where in 1955 there were 1,170,143 "legal" abortions, compared with 1,731,000 live births, the number of such abortions requested has become fewer each year since then and yet the birth rate has continued to fall. This continuing fall coincides with the remarkable economic recovery in Japan in the post-war years, with an even spread of these benefits throughout the country.

Likewise in Russia, the most dramatic fall in the birth rate has occurred since the last War, a period following the abolition of legalised abortion and coinciding with improvement in educational and general living standards.

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Gynaecologists in these and other Eastern European countries have placed their emphasis on contraceptive methods in family planning programmes for the future.

(2) Is Therapeutic Abortion Safe?

Professor Tow Siang Hwa of the Department of Obstetrics and Gynaecology in the University of Singapore has pointed out the hazards of therapeutic abortion, even when the procedure is carried out in a hospital. Complications may occur such as tearing of the cervix, perforation of the uterus, cervical incompetence, haemorrhage, infection and shock. Some individual series have been reported with good results, but if this procedure is to play a part in population control the numbers will be vast and many will be done by much less skilled operators and the results will be more like those reported by Kotasek and Zak (1967) from Czechoslovakia for a series of 5,000 cases:

Blood loss more than 500 ml.	6.2%
Temperature more than 37.5 C, lasting more than two days	14.5%
Delayed complications	7.8%
Readmission for bleeding or infection	19.8%

They conclude "legal termination of pregnancy is not without considerable hazards for the mother."

Professor Kobayashi of Tokyo University has this to say of legalised abortion: "Besides the primary mortality and morbidity of the operation itself, statistics show an increase in the incidence of secondary sterility, ectopic pregnancy, habitual abortion and premature birth among those who experienced abortion." He goes on to analyse the psychological and emotional effects of induced abortion and states that "nearly 68% showed some kind of regret and fear from their experience."

(3) Does Therapeutic Abortion Accomplish all that is Claimed?

Protagonists prophesied that the legalising of abortion would reduce the incidence of criminal abortion. This pious hope was unfounded and speakers at the Fifth World Congress of Obstetrics and Gynaecology in Sydney in September, 1967, testified to this disturbing state of affairs. It is to be expected, surely, that a woman who would previously have procured a criminal abortion for an unwanted pregnancy, would not now present herself at a public hospital or "abortionarium", as McLaren describes the new nursing homes of permissive Britain. She would still look for secrecy and go to the back-street abortionist.

And let us never be lulled into thinking that one "legal" abortion will solve a woman's problems and prevent one live birth. Elisabet Sjovalld of Sweden (1967) analysed a series of 504 cases who had a total of 2,087 abortions, an average of four abortions each. In another study by Comninou of Athens (1967), involving 7,026 patients, the number of abortions per person ranged from 1 - 20.

In considering the question of the unwanted pregnancy, Professor Tow of Singapore makes the following comments. "Legalised abortion is unlikely to fulfil the claim 'every child a wanted child'. Who is to judge whether a child is wanted or not until one has come into contact with him or her. Furthermore, a child unwanted by its parents may well become a treasure to some childless couple. The unwanted child — if there is such a term — should be entrusted to the care of an adoption society rather than to the abortionist. It is worthy of note that women who have been persuaded to give their babies for adoption often change their minds after the baby arrives. This further discredits the argument of the unwanted child."

The issue of the *South African Medical Journal* of 20th July, 1968, is devoted to a symposium on Therapeutic Abortion. This should be required reading for all our students — and also for any misguided reformist who for even one fleeting moment thought of liberalising the indications for abortion in Rhodesia. In particular, there is an outstanding article by Dr. H. Gordon, a Physician in the Comprehensive Medicine Group at Groote Schuur Hospital. May I quote his concluding remarks — "I am worried about the more permissive attitude to abortion which is being adopted by many influential religious leaders and by many individual doctors and medical associations. For the most part I believe this new attitude to be well-intentioned but misguided. Many of those who favour the more easy availability of abortion for social or psychological reasons do so with the best humanitarian motives. But I suggest that if they take a more dispassionate view of the matter they will find that simply by relaxing the anti-abortion laws, the social progress of less-privileged peoples will be delayed rather than promoted. They will also find that easily available therapeutic abortions may create more psychological problems than they cure.

"I have less sympathy for those of my colleagues who clamour for an abortion whenever a cardiac or hypertensive patient falls pregnant. I believe that much of this sort of enthusiasm is generated — perhaps not consciously — by a disinclination to accept the responsibility and the increased work and worry which the care of such patients, through pregnancy, demands. It is a lot of extra work, and there often is considerable worry, but the happy outcome of the pregnancy is a much more than adequate reward.

"I have least sympathy for those few of our colleagues to whom an enthusiasm for abortion is just a device for demonstrating their 'progressiveness'; hence their rejection of a valuable medical ethic just because it is old, and their vociferous demand for a new attitude, whose only virtue is that it is new.

"And I have no sympathy at all, only contempt, for those whose cynical attitude to ethics and whose disregard for the sanctity of life

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allows them to regard an abortion as just another routine—and lucrative—operation, and let the devil take care of the consequences.

“Earlier I referred with pleasure to the honourable status of the obstetrician—to his position of trust as paediatrician to the foetus. Beware lest the permissive attitude to abortion which we are urged to accept causes the obstetrician to forget this enviable position.

“Beware lest you find yourselves in a situation where the family doctor becomes the prosecutor, where the physician and psychiatrist are the judges, and where the obstetrician is reduced to the role of executioner of the unborn and undefended baby.”

This is my attitude to therapeutic abortion. It has no place in population control.

Sterilisation

Sterilisation of the male or female partner has an air of finality about it which has prevented it from becoming widely acceptable. It also carries the criticism that a surgical procedure is a high price to pay for contraception and is certainly unwarranted if just done for convenience or when other methods of contraception would be suitable.

We would, therefore, reserve the procedure for mothers in whom a further pregnancy would be a major medical hazard and for those *grande multiparae* who have been unable to succeed with any other method of contraception. In particular, I have offered it to women who have had numerous pregnancies, have tried contraceptive methods, failed, and ended up in our gynaecological wards with the life-endangering complications of a procured abortion.

However, as I become more conversant with the needs of my patients, I find myself agreeing more readily to sincere requests for sterilisation. There is much to recommend the simple procedure of vasectomy in the male both for the individual family unit and in a national family planning programme.

CONCLUSION

Please forgive a gynaecologist for wandering at times from the narrow confines of the female pelvis. We believe we have matured from those constrictions, and we are concerned about our patients' total needs.

The obstetrician has moved into the exciting new field of care for the unborn foetus—an endeavour to produce not just live babies, but babies who are intact in every faculty, and ready to meet the world on a level footing. You will understand, therefore, that our interests will follow this new human into the great big outside world, and we will want to be assured that there will be a place for him to mature and attain the highest potential that God had in store for him.

We seek this for all our patients.

BIBLIOGRAPHY

- VERE, D. W. (1967): In "*Ethical Responsibility in Medicine*", Ch. III.
- BEATTIE, J. (1967): *Ibid.*, Ch. IV.
- ANDERSON, D. and BRAND, P. W. (1967): *Ibid.*, Ch. V.
- BRIDGER, G. A. (1967): Proceedings of the 8th International Conference of the I.P.P.F., p. 25.
- GORYNSKI, J. (1967): *Ibid.*, p. 45.
- SEN, B. R. (1967): *Ibid.*, p. 50.
- CARSTAIRS, G. M. (1967): *Ibid.*, p. 68.
- TOW SIANG HWA (1967): "*Why I disapprove of legalised socio-economic abortion.*"
- BORELL, V. (1967): Abortion for controlled medico-social indications in Sweden. Proc. 5th World Congress of Gynaecology and Obstetrics. p. 753.
- KOBAYASHI, T. (1967): Social problems of abortion in Japan. *Ibid.*, 747.
- COMNINOS, A. C. (1967): Abortion and its complications. *Ibid.*, p. 747.
- KOTASEK, A. and ZAK, K. (1967): Termination of Pregnancy. *Ibid.*, p. 821.
- SJOVALL, E. (1967): Late social and physiological effects on women applying for legal abortions. *Ibid.*, p. 782.
- NOTESTEIN, F. W. (1967): The population crisis: reasons for hope. Foreign affairs.
- GORDON, H. (1968): "*South African Medical Journal*", 42:721.



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